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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,682	07/15/2003	Sarah Elizabeth Witt	282536US8X	7074

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EXAMINER
BRIER, JEFFERY A

ART UNIT	PAPER NUMBER
2628	

NOTIFICATION DATE	DELIVERY MODE
10/15/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)
	10/619,682	WITT ET AL.
	Examiner	**Art Unit**	
	Jeffery A. Brier	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *8/10/2007*.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8,16 and 17* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,16 and 17* is/are rejected.

7)☒ Claim(s) *2-8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

Response to Amendment

1.   The amendment filed on 8/10/2007 has been entered. The amendments to the

claims overcome the 35 USC 112 second paragraph rejection set forth at paragraph 5

in the office action mailed on 5/30/2007.

Response to Arguments

2.   Applicant's arguments filed 8/10/2007 concerning Kitsutaka have been fully

considered but they are not persuasive.

Applicant argues at page 10:

"However, Kitsutaka only describes synthesizing the original and defocused
images according to the Z-values of the objects with respect to the virtual focal point. If
the original image is superposed over the defocused images, an anti-aliased edge of
the defocused image cannot extend beyond the original image, since the original image
comprises an "entire" scene. Thus, Kitsutaka does not teach or even suggest
synthesizing the original and defocused images so that only the anti-aliased edges,
which extend outside the original image, of the defocused image remain exposed. In
addition, the defocused image described in Kitsutaka is not "alpha-blended primitive-
processed image" as recited in Claim 1, as discussed above.".

This argument is not persuasive because applicants contention of an "entire scene" is

incorrect characterization of Kitsutaka because Kitsutaka teaches performing the

synthesizing on an object or objects of a entire scene where objects may be located at

the same depth value Z or each object may be located at different depth values or

different depth values Z may coalesce any number of objects, see column 9 lines 3-7,

column 7 lines 49-62, column 7 line 65 to column 8 line 2, objects OB1-OB3 at column

10 lines 13-38, column 12 lines 11-17 and 31-33, and column 16 line 66 to column 17

line 4 as well as figures 3A and 3B.

Applicant argues at page 9:

"In other words, Kitsutaka uses only two "layers" (original image, defocused
image), although the invention recited in Claim 1 uses three "layers" (primitive-
processed image, image background, original foreground image) of the object."

This argument is persuasive to the extent the 35 USC 102 rejection is changed to a 35

USC 103 rejection in view of the "superpose said original foreground image over said

alpha-blended primitive-processed image", however, the argument is not persuasive

under a 35 USC 103 analysis because Kitsutaka's defocused primitive object (or

objects) is the "primitive-processed image", Kitsutaka's background is the "image

background", and Kitsutaka's original object (or objects) forming the original image is

the "original foreground image", see synthesis shown in figure 2 which is a combination

of defocused Kitsutaka's original primitive object (or objects) and Kitsutaka's

background with original image of primitive object (or objects). Superposing Kitsutaka's

defocused image with original image having a foreground primitive object (or objects) at

certain depths will superpose an original foreground primitive object (or objects) over

defocused original foreground primitive object (or objects) as discussed in Kitsutaka and

discussed by applicants 8/10/2007 arguments at page 8 last paragraph where objects A

and C are sharp and B and D are blurred or defocused. Changing the order of the anti-

aliasing and first processing does not affect the result of anti-aliasing the original

foreground primitive object (or objects) because both anti-aliasing before the first

processing or anti-aliasing after the first processing will anti-alias the edges of the

original foreground primitive object (or objects). It would have been obvious to one of

ordinary skill in the art to modify Kitsutaka to first anti-alias the original image having the

foreground primitive object (or objects) and then blend the anti-aliased original image

having the foreground primitive object (or objects) over the background image as first

processing and to superpose the original image having the non-anti-aliased foreground

primitive object (or objects) over the defocused image because this is equivalent to first

blending the original foreground primitive object (or objects) over the background image

and then perform a blurring algorithm which blurring will anti-alias the edges of the

original foreground primitive object (or objects) and then superpose the original

foreground primitive object (or objects) over the anti-aliased original foreground primitive

object (or objects) present in the defocused image having the anti-aliased original image

having the foreground primitive object (or objects) since both will anti-alias the edges of

the original foreground primitive object (or objects).   KSR International Co. v. Teleflex

Inc., 82 USPQ2d 1385 (U.S. 2007), U.S. Supreme Court No. 04-1350 Decided April 30,

2007, 127 SCt 1727, 167 LEd2d 705.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

5.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

6.   Claims 1, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Kitsutaka, US Patent No. 7,042,463. Kitsutaka describes at column 8 line 57 to

column 9 line 14 with reference to figure 2 defocusing an original image and then

superposing the original image onto the defocused image. Kitsuaka also teaches at

column 14 line 67 anti-aliasing the original image as it is generated. Kitsuaka also

teaches at column 16 line 56 an alternative method of defocusing by offsetting the

original image. Thus, due to the breadth of claims 1, 16, and 17 Kitsutaka teaches

these claims. A detailed analysis follows.

Claim 1:

Kitsutaka teaches a video processing method for preparing an anti-aliased foreground image for display over an image background, said method comprising:

generating original foreground image signals by manipulation of a contiguous group of graphics primitives (*The image generating section 130 generates an image by the method of polygons which are graphics primitives, column 6 lines 62-67, column 7 lines 16-24, and column 7 line 65-column 8 line 2. The drawing processor 910 also generates graphics primitives. Column 14 line 55 to column 15 line 2.*);

applying anti-aliasing filtering to edges of each primitive of said group of primitives to generate primitive-processed image signals (*Kitsutaka discusses anti-aliasing with regard to the drawing processor 910 which generates graphics primitives and can anti-alias the generated primitives, see column 14 line 55 to column 15 line 2 and anti-alias at column 14 line 67. Defocusing the blended original primitive object (or objects) and the background will anti-alias the original primitive object (or objects) because the* blurring algorithm will anti-alias or blur or smooth the edges of the original primitive object (or objects)*)*);

preparing said image background for display (*This system is designed for games which to one of ordinary skill in the art have foreground objects over a background. Also at column 16 lines 62-65 discusses a foreground object merging with the background. Thus, Kitsutaka teaches preparing an image background for display.*);

Kitsutaka does not fully teach the order of processing:

of first processing said primitive-processed image signals to alpha blend said

primitive-processed image over said image background, where alpha values of the

edges of each primitive of said group of graphics primitives are determined by the anti-

aliasing filtering; and

of second processing said original foreground image signals to superpose said

original foreground image over said alpha-blended primitive-processed image so that

only the anti-aliased edges which extend outside an area of said original foreground

image, of said alpha-blended primitive processed image remain exposed.

Kitsutaka's image generating section 130 generates an image by the method of

polygons which are graphics primitives and performs various processing the polygons.

The drawing processor 910 also generates graphics primitives and can in addition to

anti-alias perform various processing on the polygons. Column 14 line 64-67.

Kitsutaka's alpha value generating section 134, see column 7 lines 25-39, determines

the alpha values applied to the primitive object (or objects). Anti-aliasing the primitive

object (or objects) alters the edge pixels such that their values have changed resulting

in different RGBA values for at lest each pixel that extends beyond the original edge of

the primitive object (or objects). Similarly blurring the primitive object (or objects) anti-

aliases the primitive by altering the edge pixels such that their values have changed

resulting in different RGBA values for at least each pixel that extends beyond the

original edge of the primitive object (or objects). Thus, Kitsutaka suggests first

processing by superposing the anti-aliased primitive foreground object by alpha

synthesizing the anti-aliased original foreground primitive object (or objects) over the

background. At column 8 line 57 to column 9 line 14 with reference to figure 2 the original image having primitive object (or objects) is drawn or superposed onto the defocused image having anti-aliased original foreground primitive object (or objects) by alpha-synthesis. Kitsutaka teaches at column 8 lines 57-63 the original image having primitive object (or objects) is alpha blended with the defocused image having anti-aliased original foreground primitive object (or objects) which results in, at certain depths for original foreground primitive object (or objects), an image having original foreground primitive object (or objects) and the defocused (anti-aliased) edge of original foreground primitive object (or objects) which extend outside an area of the original foreground primitive object (or objects) remain exposed. Kitsutaka meets the claim limitation "so that only the anti-aliased edges which extend outside an area of said original foreground image, of said alpha-blended primitive processed image remain exposed" because in view of applicants specification the original image drawn over the anti-aliased image results in the original image and the anti-aliased edges that extend beyond the original image remain exposed. Superposing Kitsutaka's defocused image with original image having a foreground primitive object (or objects) at certain depths will superpose an original foreground primitive object (or objects) over defocused original foreground primitive object (or objects) as discussed in Kitsutaka and discussed by applicants 8/10/2007 arguments at page 8 last paragraph where objects A and C are sharp and B and D are blurred or defocused. Changing the order of the anti-aliasing and first processing does not affect the result of anti-aliasing the original foreground primitive object (or objects) because both anti-aliasing before the first processing or

anti-aliasing after the first processing will anti-alias the edges of the original foreground

primitive object (or objects).   It would have been obvious to one of ordinary skill in the

art to modify Kitsutaka to first anti-alias the original image having the foreground

primitive object (or objects) and then blend the anti-aliased original image having the

foreground primitive object (or objects) over the background image as first processing

and to superpose the original image having the non-anti-aliased foreground primitive

object (or objects) over the defocused image because this is equivalent to first blending

the original foreground primitive object (or objects) over the background image and then

perform a blurring algorithm which blurring will anti-alias the edges of the original

foreground primitive object (or objects) and then superpose the original foreground

primitive object (or objects) over the anti-aliased original foreground primitive object (or

objects) present in the defocused image having the anti-aliased original image having

the foreground primitive object (or objects) since both will anti-alias the edges of the

original foreground primitive object (or objects).   KSR International Co. v. Teleflex Inc.,

82 USPQ2d 1385 (U.S. 2007), U.S. Supreme Court No. 04-1350 Decided April 30,

2007, 127 SCt 1727, 167 LEd2d 705.

; and

Kitsutaka further teaches outputting a display signal for displaying said anti-

aliased foreground image generated based on said original foreground image

superposed over said alpha-blended primitive-processed image (*Display 190, see*

column 6 lines 17-20, receives a signal output for displaying said anti-aliased

foreground image generated based on said original foreground image drawn over the

defocused primitive-processed image.).

Claim 16:

This apparatus claim claims the same functions found in claim 1 and this claim is rejected for the reasons given for claim 1. Additionally Kitsutaka teaches the claimed apparatus for performing the claimed functions and these apparatus were addressed in the rejection of claim 1.

Claim 17:

This program storage medium claim claims the same functions found in claim 1 and this claim is rejected for the reasons given for claim 1. Additionally Kitsutaka teaches the claimed program storage medium at column 6 lines 36-42.

Allowable Subject Matter

7.   Claims 2-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. When adding the limitations of claim 2 into claim 1 applicant should integrate claim 2 into the second processing limitation of claim 1.

8.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffery A Brier whose telephone number is (571) 272-7656. The examiner can normally be reached on M-F from 7:30 to 4:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi, can be reached at (571) 272-7664. The fax phone Number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

/Jeffery A. Brier/
Primary Examiner, Division 2628